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Drug Security for Emergency Surgical Procedures

To The Editor:—A hospital that serves the needs of trauma patients must be prepared to provide anesthesia at very short notice. In order to do this, invasive monitoring lines are preassembled, and emergency drugs and anesthetic agents are drawn into prelabeled syringes. These intravenous drugs are placed on the anesthesia cart in the operating room. Drugs may be left unattended for a period of hours and are discarded by the anesthesia personnel the following morning. While this has proved satisfactory clinically, it does not comply with security standards as outlined by state and federal authorities (HCFA* and the Texas Department of Health).

During a recent accreditation survey, the Texas Department of Health referees cited the potential for theft and/or substitution of these drugs with the potential for danger to the patient and medicolegal liability of anesthesia personnel and the hospital itself.† Our dilemma was to meet the needs of the unpredictable emergency patient within the security and infection control guidelines of the JCAH,‡ HCFA, and the Texas Department of Health.

Prevention of drug substitution can be provided by a minor change in our customary routine. The drugs are drawn from freshly opened vials into labeled syringes as usual and are then sealed in a nonresealable transparent plastic bag. A suitable bagging appliance is the SEAL-A-MEAL II® (Dazey Products Co., Industrial Airport, Kansas; approximately $25 with a supply of bags), available at discount and department stores. Filled bags are inserted into the machine, and a heated metal bar melts the plastic and seals the bag. This bag then can be identified with time, date, and signature of the preparer. Syringes are visible through the plastic, the bag is easy to open when the emergency patient arrives, and cursory inspection will reveal any attempt to open the bag.

Although theft of the entire bag of drugs has not been prevented, this solution has proved acceptable to our Director of Pharmacy, who believes that it should prevent any substitution of drugs and increase patient safety.

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* Medicare Program Regulation Subpart J. 405.1027(b)(3)—9/79.

† Statement of Deficiencies and Plan of Correction, 45-0213, Bexar County Hospital District, December 12, 1984.

‡ Joint Commission on Accreditation of Hospitals. Administration of Drugs, p. 120. Accreditation Manual for Hospitals, 1985 edition.

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Succinylcholine and Polyneuropathy

To the Editor:—We would like to draw your attention to what we feel is an important inaccuracy in Azar's recent review article, "The response of patients with neuromuscular disorders to muscle relaxants."[1] The article states there are no reports of abnormal responses to succinylcholine with peripheral neuropathy.

Fergusson *et al.*[2] has reported four patients with polyneuropathy who had ventricular tachycardia develop after intravenous succinylcholine. Although serum potassium concentrations were not measured, he thought the most likely explanation for the events was transient hyperkalemia. This hypothesis is supported by the fact that all patients had had muscle weakness for longer than 5 months and that in his, and our, experience, no untoward effects with succinylcholine have been observed in the early phase of polyneuritis. Both these observations support the theory that the arrhythmias in his patients were due to hyperkalemia from muscular denervation, as discussed in the otherwise excellent review.

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